

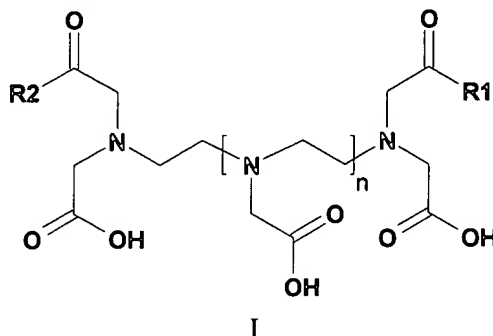
Kindly insert the ABSTRACT as the last page, enclosed herewith as a separate sheet.

IN THE CLAIMS:

Please cancel Claims 1-10 without prejudice to the filing of further claims directed to the cancelled subject matter as Applicants may see fit..

Kindly add new Claims 11-20 as follows:

11. A compound of Formula I:



wherein:

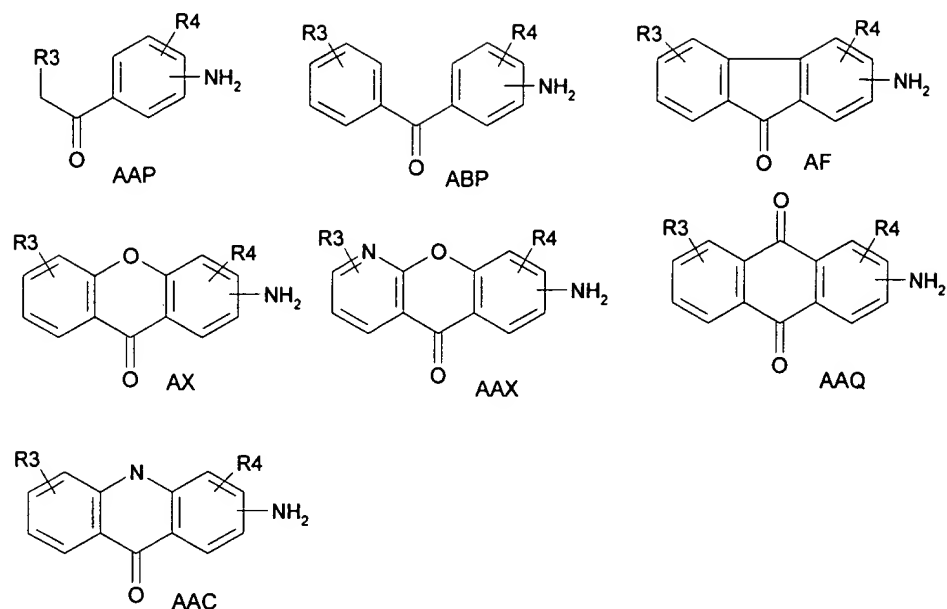
$[N\wedge]_n$ is a chelator selected from the group consisting of:

diethylenetriaminepentaacetic acid (DTPA), wherein $n=1$ in Formula I, triethylenetetraaminehexaacetic acid (TTHA), wherein $n=2$ in Formula I, and a polycarboxylate derivative of DTPA or TTHA, which chelates a lanthanide metal cation;

R1 is a phenone; and

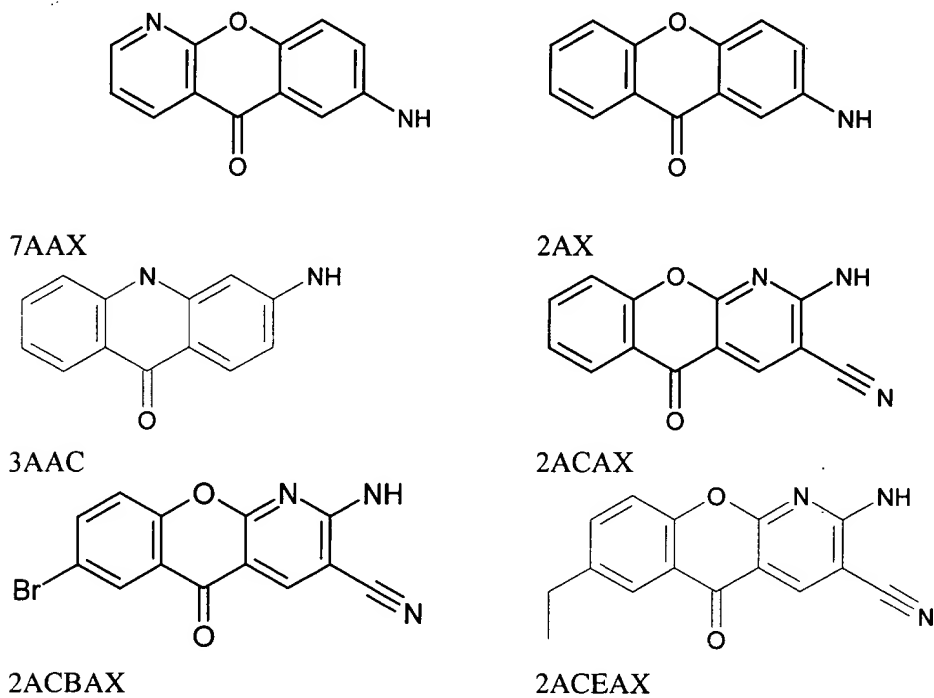
R2 is selected from the group consisting of: OH, $NH(CH_2)_nOH$, $NH(CH_2)_nNH_2$, $NH(CH_2)_nPhNH_2$, $NH(CH_2)_nPhOH$, $NHCH(CO_2H)CH_2PhNH_2$, $NH(CH_2)_nPhNCS$; wherein n is 1-6.

12. A compound according to Claim 11 wherein the phenone selected from the group consisting of: aminoacetophenones (AAP), aminobenzophenones (ABP), aminofluorenones (AF), aminoxantones (AX), amino-azaxanthenes (AAX), aminoanthraquinones (AAQ), and aminoacridones (AAC):



wherein R3 and R4 are independently selected from the group consisting of: H, OH, NH2, COCH3, COPh, OPh, NPh, CN, NO2, CO2H, and CO2CH3.

3 ~~13~~ A compound according to Claim 1 wherein the phenone is selected from the following group:

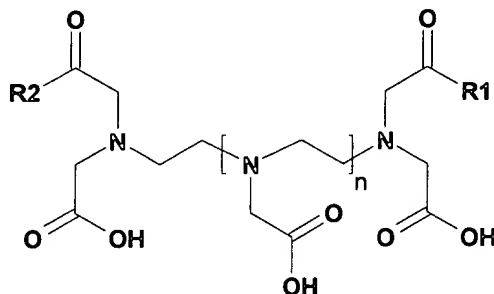


4 ~~14.~~ A compound according to Claim ~~11~~ wherein $[N\Lambda]_n$ is DTPA, wherein $n=1$ in Formula I.

5 ~~15.~~ A compound according to Claim ~~11~~ wherein the lanthanide metal cation is selected from the group consisting of: Tb III, Eu III, Sm III, and Dy III.

6 ~~16.~~ A compound according to Claim ~~15~~ wherein the lanthanide metal cation is selected from the group consisting of: Eu III or Tb III.

7 ~~17.~~ A method for using a compound of Formula I:



I

wherein:

$[N\Lambda]_n$ is a chelator selected from the group consisting of:

diethylenetriaminepentaacetic acid (DTPA), wherein $n=1$ in Formula I, triethylenetetraaminehexaacetic acid (TTHA), wherein $n=2$ in Formula I, and a polycarboxylate derivative of DTPA or TTHA, which chelates a lanthanide metal cation;

R1 is a phenone; and

R2 is selected from the group consisting of: OH, $NH(CH_2)_nOH$, $NH(CH_2)_nNH_2$, $NH(CH_2)_nPhNH_2$, $NH(CH_2)_nPhOH$, $NHCH(CO_2H)CH_2PhNH_2$, $NH(CH_2)_nPhNCS$; wherein n is 1-6;

in fluorescence detection-based techniques or bioassays comprising the steps of:

- labelling an aliquot comprising donor biomolecules selected from the group consisting of: peptides, proteins, deoxyribonucleic acids (DNAs), ribonucleic acids (RNAs), enzyme substrates, and ligand molecules with a compound of Formula I by a linking reaction with linker R2 to provide a labelled biomolecule assay sample;
- adding a suitable amount of a suitable organic dye to the labelled biomolecule assay sample;